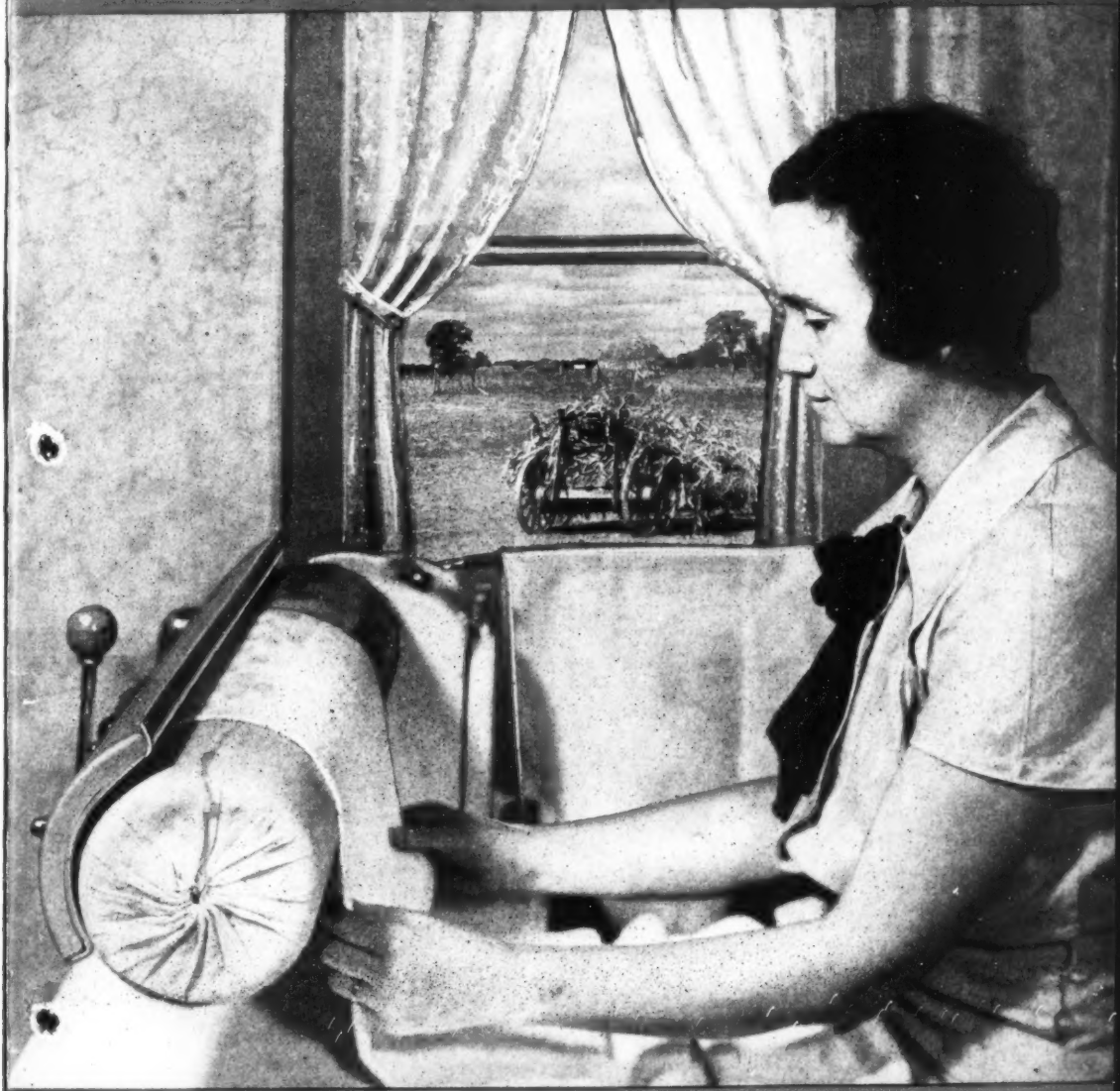
Electricity on the Farm

A MONTHLY MAGAZINE FOR THE UP-TO-DATE RURAL FAMILY



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JULY
1937

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Pays
ITS OWN WAGES

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Prevent food spoilage, save the cost of buying or storing ice, save countless tiresome trips to cave or cellar, with a Kitchen-proved Refrigerator. Keep the kitchen cool with a Westinghouse Range, equipped with "Economizer" units that cut electric cooking costs 18 to 46%. Save laundry work and time with a Westinghouse Washer and Ironer.

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GOULDS PUMPS
Goulds CID Water Supply System for deep wells.

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You never have to worry about a Goulds CID Water Supply System—they are made to give perfect performance year after year with the very lowest operating cost. Boost your farm profits and cut your work to a minimum with a Goulds CID Water Supply System. See your local dealer now—if he does not handle the Goulds line, write for the name of your nearest Goulds distributor.

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T635

July, 1937

Electricity on the Farm

Vol. 10, No. 7

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EDITORIAL

THE FIRST MILLION

The first million in electrified farms was reached last year. At the present moment the figure is about one hundred thousand larger.

There are approximately six and a half million farms in this country; hence one out of six now enjoys the multitude of advantages which electricity brings.

The little state of Rhode Island claims the distinction of having the largest percentage electrified, 91.4%. California follows with 77%. But the latter is the biggest user of electricity of all of the states by far. Most farms in California employ artificial irrigation, the water being pumped from wells. Of course, electricity has proven itself the ideal power for such work and is the most widely used. This particular use of electric power accounts, in large measure, for the state's leadership in electric power employed.

The steady growth in the number of connected farms year after year is significant. It is convincing evidence that the use of current is profitable and that it makes for happier homes.

That this growth will continue for many years is quite certain, for there are still a vast number of farms that can use electricity profitably.

And as farm electrification advances, the gap between city life and rural life will shorten, but the ultimate advantage will be with the farm family, who will have most of the advantages of city residence, with few, or none, of the disadvantages.

FRED SHEPPERD

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ONLY FRIGIDAIRE HAS THE METER-MISER

SLASHES CURRENT COST... KEEPS FOOD SAFER... and PROVES IT!

And only Frigidaire has the new

ALL-METAL QUICKUBE TRAY
WITH THE
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Ice freezes faster in *metal* trays than in trays made of any other material. And every ice tray, in every Frigidaire, is an ALL-METAL QUICKUBE TRAY with the INSTANT CUBE-RELEASE. Yields 20% more ice by ending waste and nuisance of melting cubes under faucet.

MEET THE METER-MISER

Simplest Refrigerating Mechanism Ever Built!

Keeps food safer, fresher, longer—freezes more ice, faster—yet slashes current cost to the bone . . . even in hottest weather. Quiet, unseen, trouble-free. 5-Year Protection Plan on the sealed-in mechanism. Built and backed by General Motors.

See PROOF that Frigidaire with the Meter-Miser is Complete in

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1. Greater Ice-Ability
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Don't be fooled!

SAVE MONEY...SAVE REGRET ...BUY ON PROOF!

● Even in hottest weather, Frigidaire's exclusive Meter-Miser slashes the cost of keeping food safer . . . freezing more ice! You can see THE PROOF, with an actual electric meter test, at any Frigidaire Dealer's.

Yet this GREATER SAVE-ABILITY is only one of 5 Basic Services vital to *complete* farm home refrigeration. And only Frigidaire PROVES ALL 5! Not only cuts current cost as it freezes more ice faster, and protects foods longer—but also meets every storage need . . . and runs trouble-free year after year!

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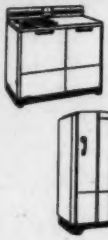
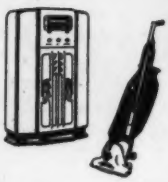
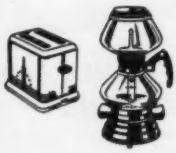


The G-E kitchen saves many steps, simplifies food preparation and cooking. Shown here are G-E range and G-E refrigerator



G-E radio sets bring news, crop reports, and entertainment. G-E cleaners remove dust and dirt and protect rugs



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Even if your output is but two cans of milk a day, it will pay you to own cooling equipment using G-E refrigeration. The complete line of G-E refrigerated milk coolers includes both self-contained and remote wet- and dry-storage models available in 4-can and 6-can sizes and up. *Prices are lowest in history!*

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Please send book on free milk-cooler survey service.

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98-4E

When the CHEAPEST WAY is the Best in MILK COOLING!

Ainsworth Spink of Attica, N. Y., uses a six-can cooler.

By MORRIS H. LLOYD

THE milk cooling regulations of states and municipalities are constantly becoming more stringent. The means of cooling, therefore, must be reliable and positive.

The method of cooling milk which produces the best results is, in the long run, the lowest in total cost. This is the electric method.

"But," you say, "I have a good well which provides sufficient cold water to cool the milk."

Are you sure it is could enough? Very few wells, no matter how adequate the water supply, furnish water at 50 degrees Fahrenheit all through the summer, and if there is any time of the year when the water supply may be low, it is during the summer months.

Let us assume for the sake of argument, that the well does furnish 50 degree water. The milk to be cooled enters the cooler at 95 degrees. To cool the milk to 50 degrees would require 100% efficiency in the transfer of heat from the milk can into the water, and would require continuous pumping as long as the milk is left in the tank. If pumping is stopped, the temperature of both milk and water will rise.

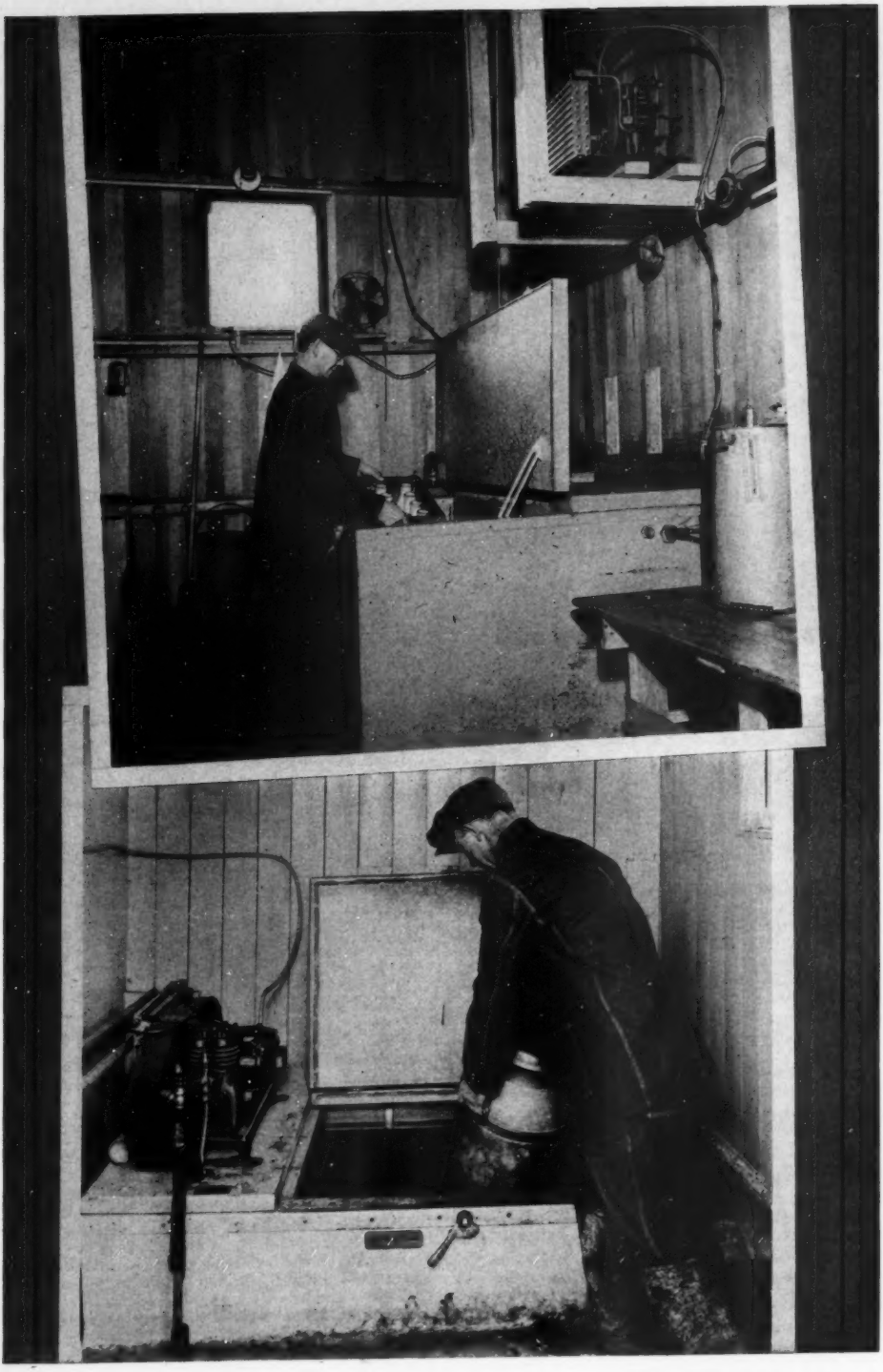
And let us not overlook the fact that the water must be pumped, and therefore costs something. Even if it cost nothing, it does not hold the proper temperature to prevent bacteria growth.

Or you may say, "I don't need an electric milk cooler. I can cool my milk with ice. I cut my own ice and store it." Yes, you *can* cool milk with ice *if* you use enough of it and can melt it fast enough in the cooling tank.

Even if you figure the ice costs nothing to cut and store, it is needed most at the time of year when you are the busiest. Then it must be dug out of the ice house, washed, carried to the cooler, and broken up. Moreover, even if the milk is pre-cooled over an aerator or suface cooler to 62 degrees with well water, it will require 15 to 20 lbs. of ice per 10 gallon can to cool it down to 50; and if it is not pre-cooled, approximately 40 lbs. of ice must be melted per 10 gallon can to cool it down to 50 degrees. (Bulletin No. 213, New York State College of Agriculture).

The electric milk cooler provides the proper amount of cooling without pumping quantities of water from the well, without requiring the handling of large amounts of ice, and without worry on the part of the owner over the temperature at which the milk is being held.

Now let's see what happens to milk when it is



Upper left: Lawrence Stabell of Corfu, N. Y., uses a dry storage cooler which cools 144 quarts per day and stores 72 quarts in cases.

Lower left: Roy Houghton, Great Valley, N. Y., has his cooler set in the milk house floor.

Right: Ashley Ditcher of Ellicottville, N. Y., uses a six-can cooler.

stored at different temperatures, as indicated by experiments conducted by the University of Nebraska Agricultural Experiment Station. We will start with good quality milk having an initial bacteria count of 5,000 per cubic centimeter. If it is cooled and stored at 70°, the count will be 15,000 in 8 hours, 140,000 in 15 hours; if cooled and stored at 60°, the count will be 8,000 in 8 hours, 11,000 in 15 hours; if cooled and stored at 50°, the count will be only 5,500 in 8 hours, and only 7,000 in 15 hours, while if cooled and stored at 40°, it will be down to 4,000 in 8 hours, 3,000 in 15 hours.

The same condition occurs with milk having an initial count of 50,000. In 15 hours at 70° the count will be over 2,000,000; at 60°, 1,200,000; at 50°, 80,000; while at 40°, it will be down to 36,500.

The electric cooler will cool milk to 40° and hold it there indefinitely. It is practically impossible to hold milk at 40° with an ice-cooled cooler due to the large quantities of ice needed, and well water would not provide such a temperature because the water would have to be practically at the freezing point to hold the milk at 40°.

At this point you may properly ask, "What is the commercial value of proper milk cooling?" To answer this question in detail would require a knowledge of the conditions in the market where your milk is sold. Briefly, however, it may be answered thus: In some markets milk having an especially low bacteria count will bring a premium. Such premiums usually will pay for the cooler in a fairly short time. While in other markets such premiums may not be obtainable, it is safe to say that properly cooled milk will not be rejected at the receiving plant due to high temperature. When the milk supply is large and prices correspondingly lower, the receiving plants are more particular about the temperature and bacteria count of the milk received. Thus the user of an electric milk cooler holds a distinct advantage whether prices be low or high.

Believing that the best evidence of the value of electric milk coolers is in the testimony of users, the writer has taken the opportunity to discuss this subject with several Western New York farmers and offers their comments as follows:

Mr. A. B. Spink, Attica, N. Y., says, "With my electric milk cooler I have no difficulty in maintaining the milk at a temperature of 36° even in the hottest weather and have been able to get the bacteria count down to 4,000 or 5,000 whereas it was seldom possible to get below 14,000 formerly. Had I not installed the electric cooler, I would have had to build a new ice house, which would have cost about as much, and I would still have the labor of cutting, storing, and handling ice, which could not be done for what it has cost me to operate this cooler,—about $2.00 per month."

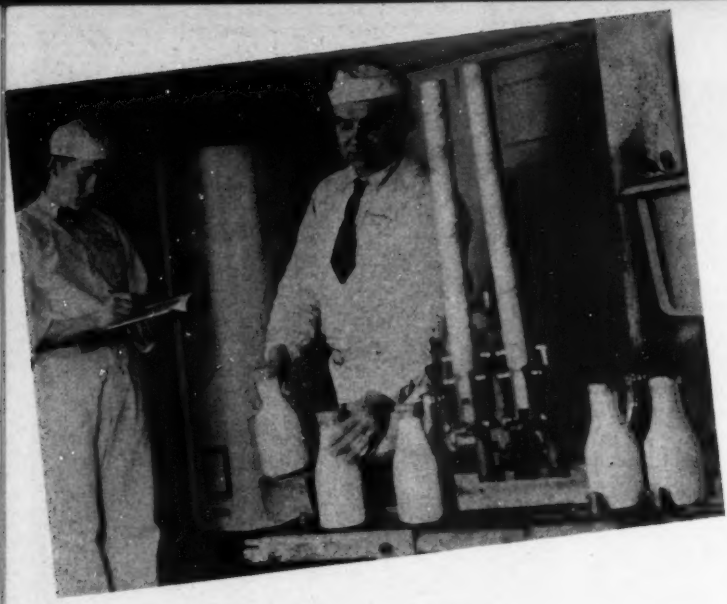
Mr. Lawrence J. Stabell of Corfu, N. Y. has a retail milk route and uses a dry storage cooler for bottled milk. He says, "I have been able to handle my milk route much better than I could before I installed my electric cooler, as it enables me to hold milk below 40°, and to carry over an extra supply to take care of days of heavy demand. I find it much more economical than to use ice, and I save the labor that would be necessary in handling ice and am never worried about getting a low enough temperature."

Mr. Edwin J. Bater of LeRoy, N. Y., has a small dairy producing two cans of milk per day. Mr. Bater states, "Since I have been using an electric milk cooler I no longer have to pump water to cool the milk, nor do I need to worry about the milk being kept cold enough. My electric milk cooler will hold at a temperature of 40°, at a cost for cooling of 2½c per can. It is a great time-saver, especially for a one-man farm."

Says Mr. Roy Houghton of Great Valley, N. Y., "My electric milk cooler is constant assurance of my milk being accepted. It consumes only one kilowatt hour per can of milk cooled."

And Mr. Ashley Ditcher of Ellicottville, N. Y. has this comment, "I don't see how anyone can help but like electric milk cooling. The first cost of a cooler may seem high, but when you consider that it insures against milk being returned on account of improper cooling, it isn't so high after all. It costs me about $1.50 a month to operate my cooler, and last summer, when a neighbor paid me five cents a day to cool his milk, it didn't cost me anything."

Now is the time to investigate electric milk cooling. It will pay you to do so, just as it has paid the gentlemen quoted here.



Young Bill Oskam and his father in an all electric milk house.

This Dairyman Keeps the **BACTERIA COUNT** in Milk **BELOW 1000**

By J. C. SCOTT
Agricultural Engineer

FOR the past 14 years William Oskam, owner of the Meadowdale Certified Dairy Farm near Kirkland, Washington, has won either First or Second prize at the Western Washington Fair at Puyallup, for his certified milk.

What is more, he has, for years, been getting from 6 to 8 cents a quart premium for the milk which he sells on the Seattle market.

One might think it difficult to sell all the milk produced by 53 head of dairy cows (which is the average number milked on the Meadowdale Farm), for 6 to 8 cents a quart above the regular price of milk, but the last time I visited the Meadowdale Certified Dairy, Mr. Oskam was making arrangements to buy 10 more head of cows so he could satisfy the increasing demand for his milk.

Before electricity was used in as many ways as it is now on dairy farms, it was considered impractical to consistently produce milk that would hold below 10,000 bacteria per cubic centimeter of milk, day in and day out, throughout the year, and do it economically enough to pay a dairyman for his extra labor and other expense. That was several years ago.

But here is what Mr. Oskam is doing today. According to the Health Commissioner's reports, milk from the Meadowdale Certified Dairy contains only 300 to 1,000 bacteria per cubic centimeter of milk.

Mr. Oskam says: "It pays to produce high grade milk, and furthermore, it can be done economically by employing electricity to take the place of much of the man-labor. In fact, I don't see how such milk could be produced without electricity.

"I wouldn't run a dairy farm," Mr. Oskam emphatically declares, "without electricity. It makes for the success of our farm and every other farm where it is used in the right way.

"If I had to go back to oil lamp, hand pump, hand milking—no electric milk cooling and refrigeration methods, I'd go broke very quickly.

"Take that electric water pump for instance. We wash our barn, where the cows are milked, twice a day, so it is just as clean as anybody's kitchen. Suppose we had to pump all that water up to high pressure by hand. Think of the time and real back-breaking labor it would require. That is a 900-gallon-per-hour pump and furnishes water pressure at the tap for washing out the milking barn twice a day, watering cows, washing utensils and keeping the milk house clean, drinking water for 1,400 laying hens; for household use, including lots of baths; and to keep the lawn green.

"It could take more man-labor to pump and carry all that water than it takes to run this farm the way we are doing it with electricity.

"The result would be that we couldn't produce premium milk."

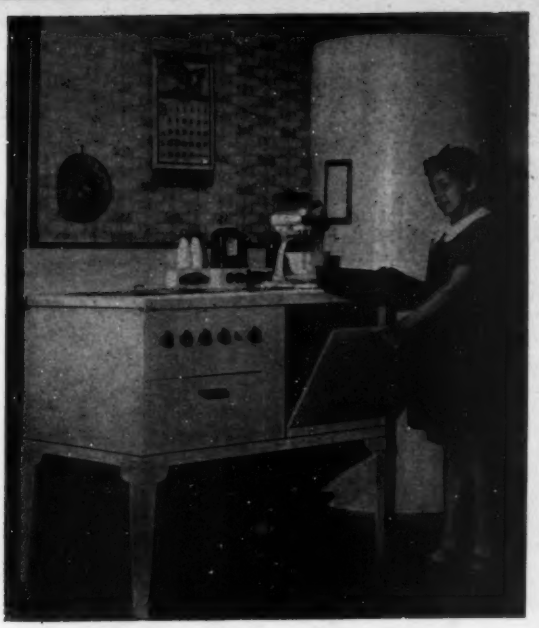
Dairy Barn Spotlessly Clean

At the Meadowdale Certified Dairy the cows are driven into the spotlessly clean barn where they are cleaned well before milking. Then they are milked by an electric milker operated by a young man, all dressed in a clean white suit, who knows the dairy business from A to Z because he learned it from his father. His name is Bill Oskam. He is 17, and the eldest of Mr. and Mrs. Oskam's four sons. Harry is 16, Durk 14, and Jimmie 10. From the enthusiasm they displayed in explaining every detail of how the dairy work is done by electricity, I should judge it is no problem to keep these boys interested in dairying. They told me about the electric milking machine, electric milk cooler, and even how the milk is stirred and bottled with electric power.

"We don't even touch it," they explained. "And see, here is the new electric hot water tank. It furnishes hot water for washing the milk utensils and bottles. The water is scalding hot any time you want it. We never pay any attention to it. It just runs itself."

After visiting the Oskam farm one can't help but appreciate the fact that there are reasons for all of these fine young people being so proud of their home, and taking such an active and enthusiastic interest in all the farm operations. This condition is not found on some American farms, where the young folks are bored with anything in connection with caring for cows or chickens, or producing farm crops.

While it is unfair to give electricity all the credit for maintaining the lively interest of the Oskam family in their farm, yet I am sure that Mr. and Mrs. Oskam feel that without electric service it would be much more difficult to keep this wonderful family so happy and contented in helping to operate the Meadowdale Certified Dairy.



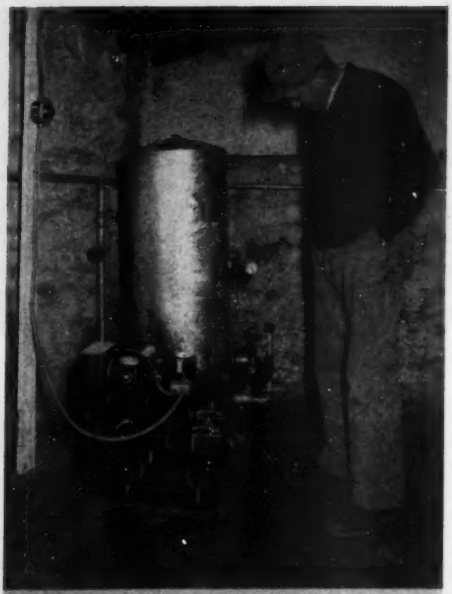
Upper: Esther Oskam finds no drudgery in helping mother because the electric devices in her home do the hard work.

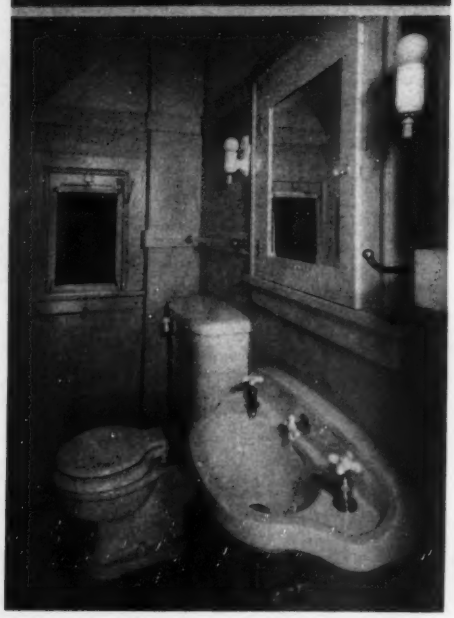
Center: The electric milker and a part of the Guernsey herd in the spotlessly clean barn.

Left: Some of the medals and awards won by Mr. Oskam for his high quality milk and three future dairymen: Jimmie, Durk and Harry Oskam.

WHO WILL PUMP THE WATER?

By C. SAMUELS
Rural Service Engineer





THE importance of water on the farm is clear to anyone. Without water there could be no growing crops, no live stock, no farm, and no people. All life depends on water, on the proper quantity and quality and on having it ready for use when and where it is needed.

Throughout most of the country there always is plenty of good water quite near to the plants, animals and humans whose very lives depend upon it. But it is generally underground. It is not available. It can't be directly reached and used. The big problem is to bring it up and distribute it where it will do the most good. That is the job of the modern water system.

There is hardly an investment about the farm that will yield such large returns in time and labor saving, in convenience, in comfort and often, in dollars and cents. Just consider the time and labor involved in providing water by hand on an ordinary farm.

It doesn't take a very large farm with much live stock to need 85,000 to 100,000 gallons of water a year. Even the smaller figure is over 7,000 gallons a month—233 gallons a day. The average household will need 30 to 35 gallons a day and all too often the housewife must pump and carry it herself. In just one year, 30 gallons a day amounts to over 45 tons for some one to lug into the house. Yet that job goes on year after year when a water system would do it all,—and more, at very little cost.

Just the pumping is quite a labor item. At 200 gallons an hour with a hand pump, 7,000 gallons of water takes 35 hours of human labor. Figured at only 10c an hour that is $3.50 for the labor of pumping a rather limited water supply for one month. Under average conditions an automatic water system would supply the same amount for about 10 kw hrs. of current.

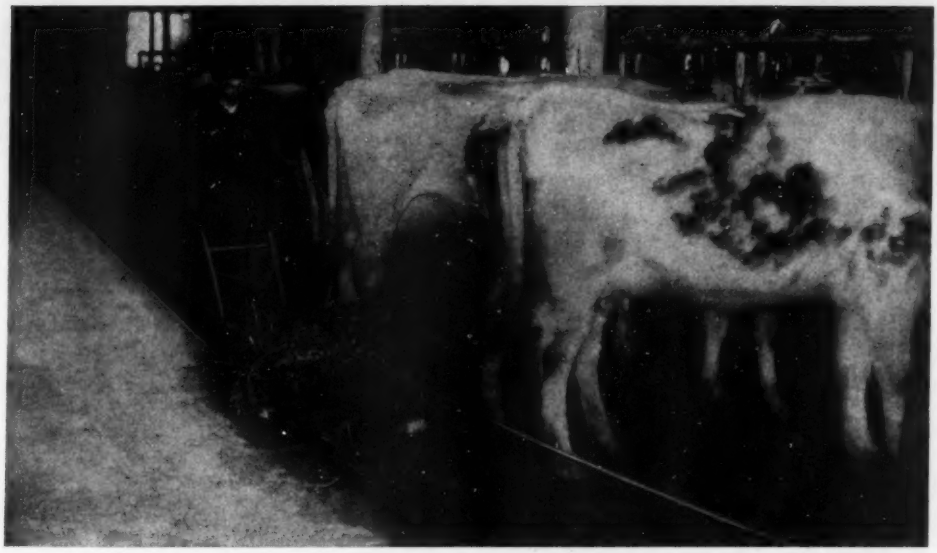
The acutal operating cost would depend, of course, on the rate, but it would rarely amount to a dollar and would often be less than 50 cents. Quite different from $3.50!

And remember for its low wages the water system does more than supply the water. It also carries it to the drinking bowls in the barn and to the kitchen sink, or laundry, or bathroom.

Plenty of water always at hand increases the profits from live stock and poultry and increases the comforts and the advantages of life in the country. A good water system is an aid to better living that pays its own way.

Upper: The little motor takes over the job of pumping.

Lower: A convenience made possible by an automatic electric water system.



650 pounds of manure starting for the field. All done by motor—not by muscle.

CLEANING THE DAIRY BARN BY POWER

By C. G. YARN
R.F.D. No. 4, Des Moines, Iowa

WHEN the modern litter carrier first came rumbling along its overhead track in the dairy barn, it marked a great improvement on older methods of removing manure. The little old port holes from which manure had been pitched out through the side of the barn were boarded up. The barn itself emerged from the heaps that had half hidden it, and their stains gradually faded from its walls.

Or if by great effort the manure pile had been kept farther from the barn, the wheelbarrow and the plank runways used in doing it could now be abandoned.

Still every particle of the hundreds of pounds of manure that accumulates each day had to be forked up by hand and lifted, dripping and splashing, into the carrier tub. Throughout all these years cleaning the barn on most dairy farms has remained a nasty, messy job that won't wait till tomorrow and that takes more muscle than mind.

A few years ago, however, a practical dairyman decided to let his brain relieve his back. So he invented and patented a successful way to make a motor do all the hard work of barn cleaning. He is Mr. C. G. Yarn of Polk County, Iowa. Mr. Yarn maintains a herd of 50 to 60 cows and sells his milk to customers in Des Moines.

Mr. Yarn's idea, which has proved practical in daily use for more than ten years, is to slide the manure along the length of the gutters and out on to a flat rack or into the manure spreader by mechanical power and in one operation. Then it can be hauled and spread on the fields with practically no hand labor at all.

Arrangement of Barn Structure

To do this the barn must be arranged with a door at the discharge end of each gutter and there must be no fences or buildings to prevent bringing the spreader up to each of these doors. If the end of the gutter is fully as high as the top of the spreader box, so much the better. But Mr. Yarn successfully uses a portable wooden chute 8 ft. long to elevate the manure 3½ ft. from the gutter to the wagon.

"I get my power from a 1½ H. P. motor," Mr. Yarn explains, "connected to a simple winch or windlass. They are mounted up against the ceiling of the barn completely out of the way. The wind-

lass drum works on a ½ inch steel cable at the end of which is the scoop or scraper that cleans the gutters."

"This scoop which should just fit the gutter can be made by any blacksmith. Ours weighs only about 25 pounds and is equipped with a pair of plow handles so it is very easy to use."

About 15 ft. from the barn a pulley is permanently fastened directly opposite the hole where the cable from the drum comes out. Also opposite the end of each gutter there is another good solid post for holding a second pulley while that particular gutter is being cleaned.

Method of Operation

To begin operations, a man drives a wagon or spreader up to the end of the first gutter, hooks a pulley to the post opposite, and drags the scoop by its plow handles back into the barn. Then he sets the scoop in the gutter and starts the motor. The windlass taking up the cable draws the scoop with its load right up to the waiting wagon.

Since 600 to 1200 pounds can be pushed out and loaded at each trip, the man starts the scoop in the gutter where there will be about that much manure ahead of it. Thus he may be able to clean the gutter completely behind 15 cows or more at each scoop load. The whole operation depends on the fact that manure mixed with an ordinary amount of straw bedding can be pushed ahead of the scraper in a long narrow ribbon. It does not pile up and spill out over the floor, even when pushed up a sloping chute.

This helps to keep the walk behind the gutter clean and dry, a great aid to sanitation, and also prevents the injuries that dairy cows suffer from falling on slippery floors. It helps the men keep their clothes clean, too, for they do not have to lift or throw any litter or liquid as they do in ordinary barn cleaning.

The great advantage of this method, however, is the saving it makes in time and labor. The twenty-four hours' accumulation of litter from 40 cows can be cleaned out and loaded in the spreader in 10 to 12 minutes. This is at the rate of about 300 pounds a minute.

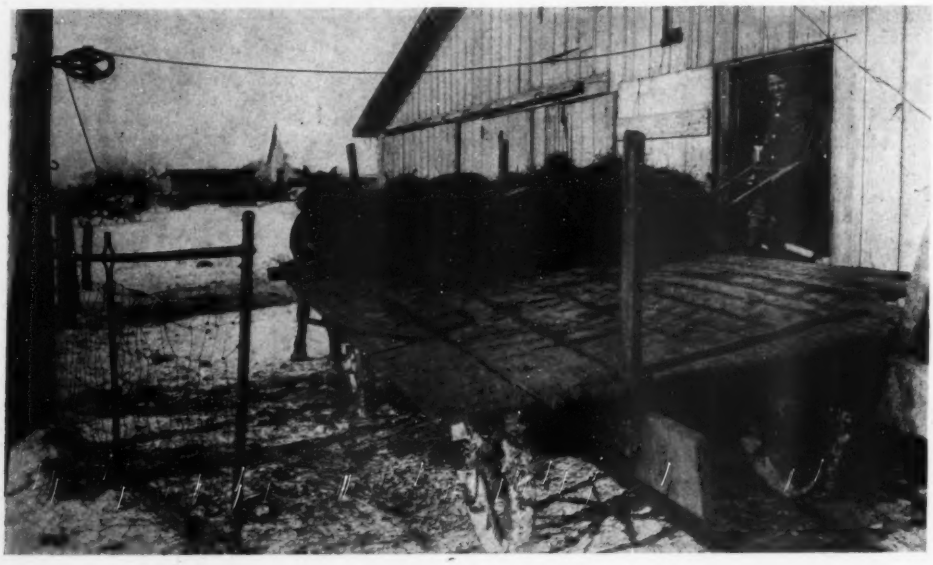
"When our barn is full," says Mr. Yarn, "we have 76 cows in four rows of 19 cows each, with a separate gutter, of course, behind each row. In a timed test our electric motor cleaned those four long gutters and loaded the manure from 76 cows on to a flat rack in just 18 minutes. The load weighed 6750 pounds. That means it was loaded at just 375 pounds a minute. It would take a lot of men with ordinary manure carriers to do it that fast!"

Leading agricultural engineers and farm paper editors who have seen this equipment in operation have been astonished at its simplicity and success. After a visit to Mr. Yarn's farm Mr. John Thompson of Wallace's Farmer wrote in the April 14, 1934, issue of that progressive and reliable paper:

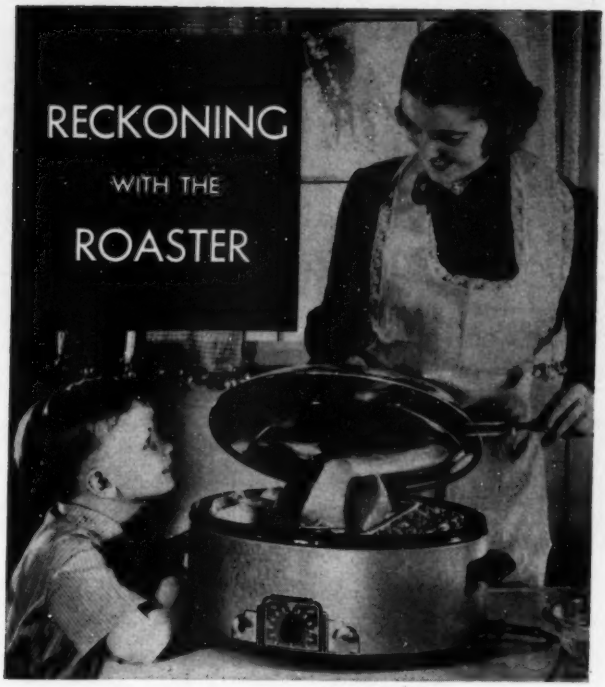
"We could not believe that it was possible to remove the manure from behind a row of 15 cows in a ribbon without its piling up and dropping over on the floor; but seeing is believing. We had to admit that it could be done, because we saw it done and it has been done for many years, every day. Any man who is contemplating building a new barn, or who expects to remodel an old one, should take the trouble to inspect this equipment, for it certainly saves enough labor to pay for itself in short order. After that it will pay handsome dividends.

"It is one of the most practical and economical barn cleaning systems that we have ever seen."

The motor scoops the manure right from the gutter onto this rack.



RECKONING WITH THE ROASTER



Dinner is ready.

By VERA B. MEACHAM

SOME people there are who have never paid any particular attention to the new electric roasters. They may have seen them often enough, too, passing them in the various housewares departments or the sales rooms of the electric company.

Roasters come in different shapes and different sizes. Some of them are big cream colored oval dishes of porcelain enamel with black handles and a shining cover; some are made of a grayish green metal with black bands; some are not oval at all, but oblong and covered with black enamel, trimmed with several rows of silvery chromium.

They are thick walled dishes, all of them, because between these outer shells and their seamless lining of porcelain enamel is a layer of insulation. A heavy enameled pan fits inside the roaster. You cook in this pan or in smaller dishes that sit inside it.

For the oval roasters there are three separate dishes, a large one that fits in the middle to hold the meat, and two smaller ones, cut to fit snugly into the ends for two vegetables or a vegetable and a pudding. The oblong roasters use square pans and oblong pans of oven glass, of aluminum or of enameled steel. For baking special pans and trivets are provided.

These various dishes make it possible for you to cook your meat and vegetables and dessert in the roaster all at one time with the same electric current and no watching whatever.

I say with no watching because you can get these roasters, any of them, with an automatic control.

Right there on the face of the roaster is a dial with numbers reading from 150 to 500, or 550, and a knob you can turn to control the temperature.

When you plug in the cord, a light signals that the current is on. When the roaster reaches the temperature you have selected, the thermostat cuts off the current and the light goes out. That tells you it is ready and you can put in your meat, or your cake or your biscuits. Throughout the baking you will have the measured heat, accurately maintained, just as you do in the oven of a modern range.

Makeup of Largest Sizes

The largest of these roasters use 1,000 to 1,150 watts. This is not a very heavy wattage if you compare it with that of an electric oven, but you want to remmember that while these are large roasters, they are very small ovens. Besides this heat is built right in the cooking dish itself, instead of coming from the otuside. The wires are wound round the walls, and across the bottom of the roaster. Most of the heat comes from the sides,

with just enough on the bottom to brown the rich meat juices that drizzle down from the roasts, but not enough to char them in long cooking.

You can plug these roasters into a convenience outlet.

In them you can roast a turkey or simmer an Irish stew. You can bake bread, two loaves at a time, and pies, or cakes, too. You can steam a plum pudding, sterilize the baby's bottle, or bake an angel food.

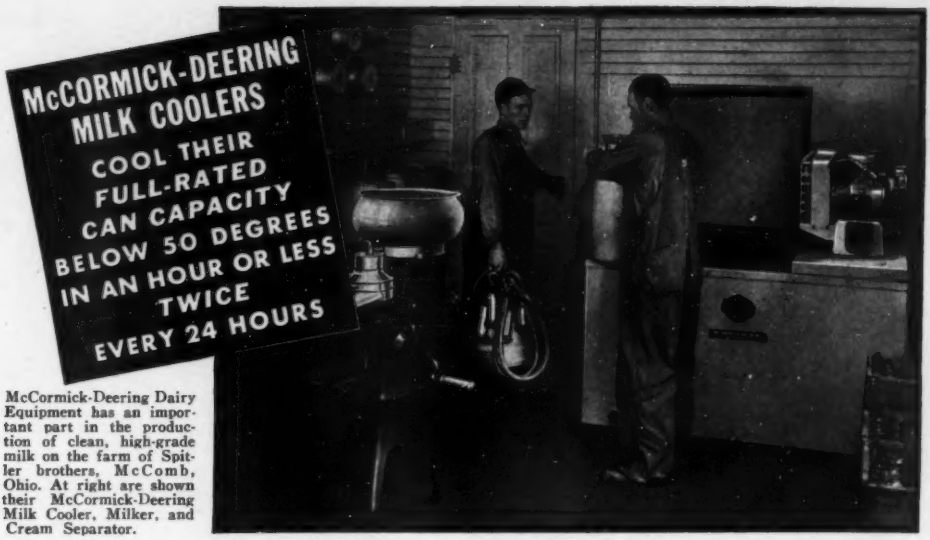
During this last year the roasters have added a grill that broils excellently.

They offer an economical, convenient way of getting accurate controlled heat to use where you want it. They do not make summer kitchens hotter because they are built to keep the heat inside. They can be bundled up and taken off to a club meeting, or down to a church supper with the food sizzling and simmering away until it is put on the table.

•

Upper: The end dishes have tight fitting covers.

Lower: Another roaster that is an oven.



McCormick-Deering Dairy Equipment has an important part in the production of clean, high-grade milk on the farm of Spitler brothers, McComb, Ohio. At right are shown their McCormick-Deering Milk Cooler, Milker, and Cream Separator.

Avoid Milk and Cream Spoilage . . . Install a McCormick-Deering Cooler in Your Dairy

MILK-HANDLING becomes a serious problem during hot-weather months. Dairymen who have installed **McCormick-Deering Milk Coolers** declare that they offer the real solution. Their ability to cool their *full-rated can capacity* below 50 degrees in an hour or less, *twice* every 24 hours, is the kind of cooling efficiency needed in summer.

By keeping milk and cream from spoiling before it leaves the farm, they actually help pay for themselves. They have attained their outstanding position in the dairy industry because they are a thoroughly sound investment.

Pneumatic water agitation—an *exclusive,* patented McCormick-Deering feature—used in connection with a built-up ice bank, is the reason why they cool so quickly. Constantly rising bubbles cause the water to pass over the face of the ice bank where the water is thoroughly chilled and circulated all around the cans, from the bottom up to and over the milk level.

Make the investment in a McCormick-Deering Milk Cooler now and avoid spoilage of milk and cream. Various sizes and types, electric and engine-drive, are available to meet your requirements. And when you see the McCormick-Deering dealer, also ask him to demonstrate **McCormick-Deering Milkers** and **Cream Separators** —two other pieces of dairy equipment that are building dairy profits everywhere.

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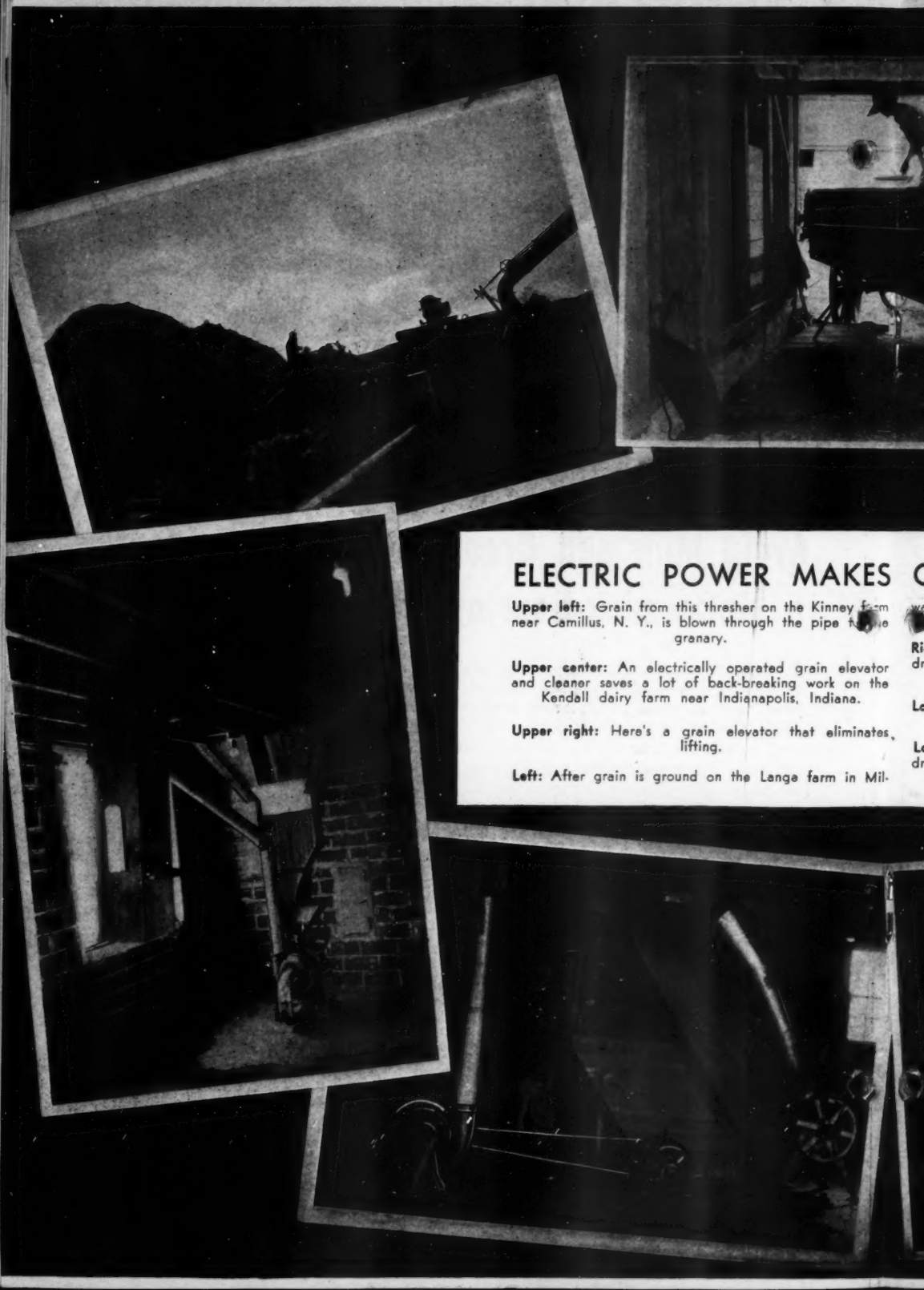


ELECTRIC POWER MAKES C

Upper left: Grain from this thresher on the Kinney f[illegible] near Camillus, N. Y., is blown through the pipe t[illegible] granary.

Upper center: An electrically operated grain elevator and cleaner saves a lot of back-breaking work on the Kendall dairy farm near Indianapolis, Indiana.

Upper right: Here's a grain elevator that eliminates lifting.

Left: After grain is ground on the Lange farm in Mil-

KES GRAIN HANDLING EASY

waukee, the blower attached to the grinder sends it back to the overhead feed room.

Right: This motor, mounted out of the way on the ceiling, drives the elevator which carries the grain to the storeroom above.

Lower left: A convenient grain grinding room. An electric motor does all the heavy work.

Lower right: A grain hopper on the farm of O. C. Hendrix, Bringhurst, Indiana, feeds the grinder automatically, and delivers it as required to the floor below

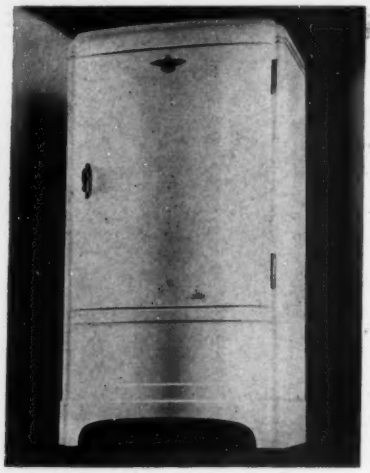
ELECTRICAL HOUSEKEEPING

Conducted by
GAIL MEREDITH

IF YOU ARE FREEZING

A NEW refrigerator in any kitchen has a double job. First of all, it is charged with responsibility of protecting our food all the year round. That is what we buy a refrigerator for, and that is its most important contribution to our homemaking. But it is not the only one.

A refrigerator can help in preparing food, too. It makes salad greens crisp and brings out the flavor of many fruits to chill them thoroughly.



Above: When you use your refrigerator as a freezer, set the cold control for the lowest temperature, and keep the door closed as much as you can.

Right: Thorough chilling improves the taste of many foods.

Cold helps finish up jellied salads or desserts. It gives firmness to a wobbly loaf of jellied veal, and it puts a pleasant tang in even so mild a dessert as Floating Island. Have you ever served one really cold? It is worth trying, I assure you.

Then there are all the ices and sherbets, the mousses and the creams that you freeze for a finish.

Frozen desserts are favorites with most everybody. They are easy to make, too, if you will just follow the rules in the book that came with your refrigerator. Perhaps you haven't found them, but, along with all the pictures of those delectable desserts and those inviting salads, and preceding the recipes, you will find careful directions for the use as well as care of your refrigerator.

When you want to use it as a freezer, they will tell you, you must change the cold control first of all. Move it over from the position for ordinary operation to the one that will bring the lowest temperature. I do not know what that may be on the dial of your control, but you do, of course. If you will do this some half hour before the dessert is ready to go in, you can hurry its freezing.

To get the best results your tray should be in direct contact with the floor of the chilling unit. More than that some manufacturers recommend freezing it to that unit firmly. You can do this by leaving a little water on the bottom of the tray or by putting two or three tablespoons of water on the floor of the chiller and setting the tray on it.

After the dessert is frozen, you turn the control back to the position where you ordinarily have it and leave the cream there for a time.

The women who are working with these frozen desserts constantly in the kitchens of big manufacturing companies say that it tastes better if you let it stay there a while and mellow.

Nobody can tell you exactly how long it is going to take you to freeze ice cream in your refrigerator. That depends on too many things. But I can tell you a couple of things that will help hurry it up. One is keeping the door shut as much as possible; the other is freezing your ice cubes before or after, not while, you are freezing the dessert.

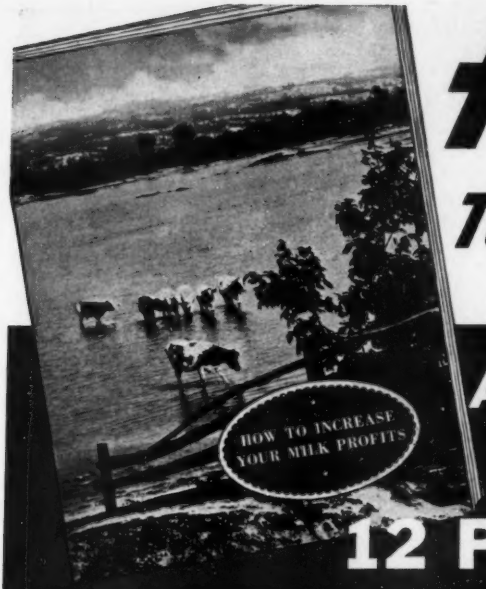
To get good results, you should begin with a good recipe and follow it exactly. Measure ingredients carefully and put them together as the recipe recommends. Frozen desserts are not apt to turn out so well for those cooks who depend on inspiration, who take a pinch of this and a dash of that and pop it all into the refrigerator expecting it to come out a smooth, creamy ice.

One thing to watch is the sugar in your recipe. If there is too much, the mixture may not freeze. On the other hand, if there is too little, the dessert will be icy. Usually food experts say, the right

amount is a quarter of a cup to one cup of liquid.

Sometimes you may have thought there was a buttery taste in your ice cream. If there was, the chances are that you used too heavy cream or that you whipped it too stiff.

20 per cent cream, the kind they sell in bottles as



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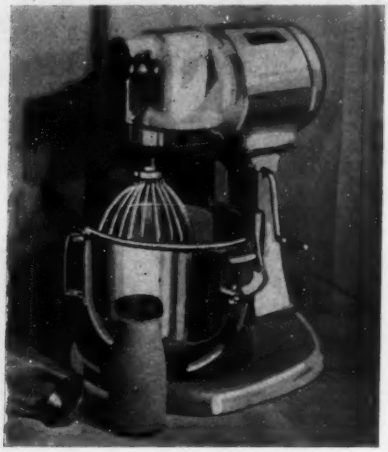
Kind of Refrigeration Used.....

Number of Cows.....

coffee cream in town, can be used in most any recipe if you let it stand in the refrigerator for 24 hours, or put it into a tray to chill or even



Do not over whip the cream.

partially freeze before you begin to whip it. The bowl and the beater blades should be cold, too.

You know, probably, that you can use evaporated milk in any recipe calling for whipped cream. Scald it first in the top of a double boiler, or set the can in boiling water for about thirty minutes. Then get the milk, the bowl and the beater very cold before you begin the beating.

Some food authorities suggest using a teaspoon of gelatin to each cup of liquid when you are using 20 per cent cream, and half a teaspoon to a cup when you use the evaporated milk. It is not actually necessary for a firm dessert, but it does prevent rapid melting.

Now a word more about the freezing. If your recipe tells you to freeze the custard or fruit base to a mush before you add the whipped cream or beaten egg white, pay it due heed. Turn the mixture out into a chilled bowl and beat it up well before you fold in the cream. Then you can put it

Fold the whipped cream into the frozen fruit juice.

back into the trays and let it freeze without any more attention, and the smooth texture of the cream will well repay you for that extra mixing.

Sherbets and ices, too, should be frozen quite firm and then taken out and beaten with the egg whites or cream until they are light and frothy. The recipes tell you how, I'm just warning you not to skip that step. It makes so much difference in the result.

You can use marshmallows successfully as the base of many frozen dishes. After you melt them in hot water or milk, you can make any number of combinations with fruit and whipped cream.

Ice cream powders containing about everything but the liquid, I guess, are on sale in some places. They are very easy to use, and I have tasted ice cream made from them that I thought excellent. They have the great advantage of being what the manufacturers call—most unflatteringly for us—fool proof.

You see how it is, anybody can make good ice cream if she uses good materials and a good recipe.

All you have to do is mind your P's and Q's when you're freezing.

Peach Marlow

30 marshmallows
¾ cup milk or water
1 tbsp. lemon juice
1½ cups cream
2 cups peach pulp
1 tsp. almond

Melt the marshmallows in the hot milk or water. Cool. Add peach pulp and flavoring and chill. When mixture begins to thicken, combine with the whipped cream. Pour into tray and freeze without stirring.

General Electric Kitchen Institute.

Banana Mousse

2 bananas
1 teasp. lemon juice
1 cup whipping cream.
¼ cup sugar
¼ teasp. salt

Mash bananas, add lemon juice, sugar and salt. Fold banana mixture into whipped cream and pour into freezing tray. Stir occasionally during the first hour of freezing. Requires about four hours to freeze.

Apricot Sherbet

¾ cups sugar
1¾ cups water
⅛ tsp. salt
2 tsp. gelatin
¼ cup sold water
1½ cups apricot pulp
Juice of 2 lemons
2 eggs whites beaten stiff

Boil sugar and water ten minutes. Soften gelatin in cold water and dissolve in syrup of sugar and water. Sieve the canned apricots and add to the cooled syrup. Pour into the refrigerator tray and allow to set. Remove from the refrigerator and beat with electric or Dover

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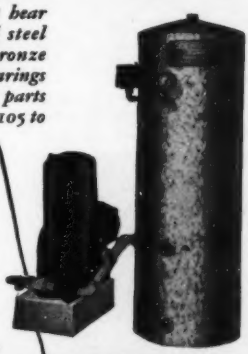

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egg beater. Fold in the beaten egg whites and put back in the refrigerator to freeze. Allow about three hours.

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• • •

ARRANGING THE RANGE

I ALWAYS like to go into Helene's kitchen. Besides being very colorful and gay it looks as though it would be an easy place to work.

Like all well-planned kitchens it is arranged to save steps. When you go in through the back door, you pass close to the refrigerator which stands against the south wall. The sink is under the western window with a counter on either side, extending entirely across the room. There are cabinets above and cabinets below these counters to give plenty of storage space.

The range is on the third wall near the dining room door. Above it is a narrow shelf that holds a row of white canisters trimmed with scalloped bands and tiny flowers of Chinese red. There is a big can for flour, a shorter one for cereals, and still smaller ones for coffee and tea.

From hooks screwed into the lower side of the shelf hang four enamelled kettles. They are red like the trimming of the cans, red like the stripes in the dishtowels, and red like the shelves over the breakfast table and behind the cupboard doors.

At the right of the range is a built-in cupboard that goes from floor to ceiling. Here are deep shelves that hold the rest of the kettles, the pans, the roasters, and the baking dishes Helene uses when she cooks. Here, too, are the waffle iron and the toaster, the coffee maker and the electric tea kettle. The back of the farthest shelf is little more than arms length from the stove.

This arangement Helene has worked out is a very good way of planning the cooking and serving center in a modern kitchen. But there are others too. If you are drawing plans for a new house or making sketches to help a carpenter rebuild your old kitchen, you'll find it helpful, I'm sure, to find out how other people are doing theirs.

When you had to plan the kitchen around a wood stove, you couldn't do as you liked. The location of that stove was pretty largely dictated by the chimney. You had to put your cabinets far enough away to escape the heat, and you had to give over a good sized stretch of one wall to the wood box. Getting rid of the wood burning cook stove is one important step in kitchen modernizing.

It's the first step to save steps.

One Home Management Specialist in an eastern state reports that a woman in one of her study groups has been walking seventy-five miles a year carrying wood to her stove.

You stop that travel with an armful of wood when you put in an electric range.

You can set the electric range anywhere you like, and that, if you are going to have one of these efficient, stream-lined kitchens, is across from the refrigerator, around the corner from the sink, and close to the dining room door.

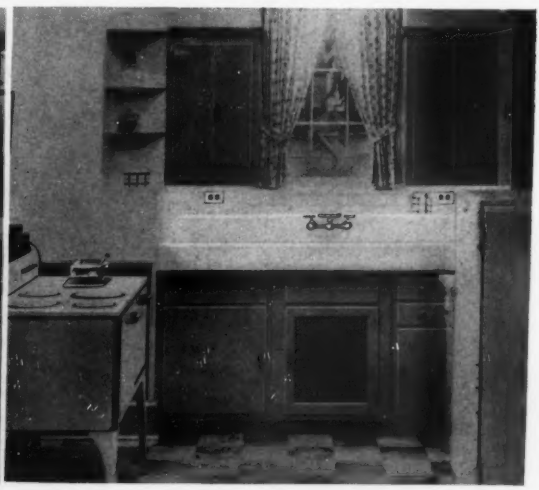
Near the range should be shelves and drawers and bins for all the supplies and equipment you will use there, and plenty of counter space where you can spread out your baking and get food ready to serve.

One excellent kitchen plan I saw recently has a counter on each side of the range, the one on the far side extending to the casing of the dining room door for convenience in serving.

Probably most of these new plans show cabinets both below and above these working counters as well as over the range itself. The possibilities of cabinet arrangement are practically unlimited.

Left: Helene's kitchen is a welcoming room.

Right: An excellent arrangement, but just a little short on work space.



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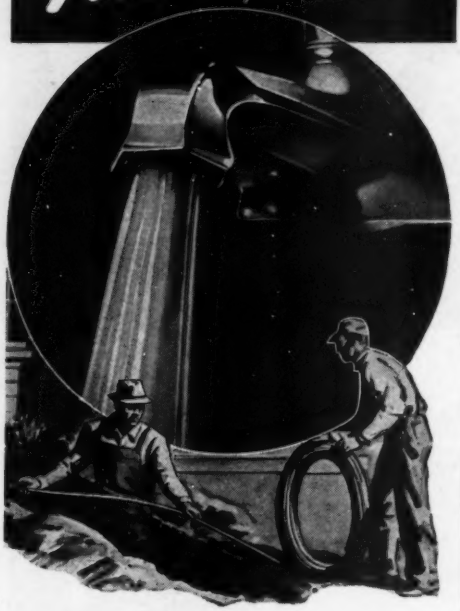

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July Contest

THE next time we travel that way, I'm sure all of us will want to climb to the Top o' the Hill for the view, and a snack from the cupboard. If you get there first, please tell Mrs. Downey I'm coming, too.

Now, if some of the rest of you could use five dollars, too, you may be interested in writing a letter this month on "My Kitchen Floor." Just that. Tell us, if you will, what it is made of, and how you take care of it. If you would have a different one, were you planning an ideal kitchen, tell us that, too.

The writer of the letter we publish will receive a check for five dollars. All of the letters become the property of the magazine, and the writers agree to their use, or to the use of quotations from them. Payment for such use will be made at regular space rates.

The letters should reach me by July 20. Address them to Gail Meredith, 1026 Seminole Highway, Madison, Wis.

And the cabinets themselves provide more convenient storage than ever.

Below the counter should be space for cutting boards, for frying pans, pie tins, roasters, and griddles. Over the range could go the cereals, the coffee and the tea so you won't have to chase

There is ample storage room over and around this range.

all over the room to get breakfast. There should be room for all the herbs and seasonings you use with meat and soup. It is convenient to have there all of the vegetable dishes, the platters, even the dinner plates on which you serve the food. Some women put the toasters and percolator on these shelves, too.

In a kitchen I saw not long ago, the cabinet over the range had a rack where pan cover and cookie sheets slid into an upright file that kept them from clattering down, a tinny avalanche, as mine do when I reach for the second from the back. On the inside of the cabinet door were hooks for pot holders, a large spoon, and a fork.

For those folks who, like Helene, want the kettles they use oftenest right at their finger tips, open shelves above the range can take the place of cabinets, and the kettles can dangle from them or sit in sober rows waiting for a job.

It is planning that does it. Intelligent planning that groups all of the things you use in cooking at one place, handy to the stove for cooking, and handy for serving the food once it's cooked. My grandmother who never saw a modern kitchen knew the tricks; she always called it "making your head save your heels."

• • •

"I EARNED THIS MONEY MYSELF"

(*Prize winning letter for April*)

I live near the top of a hill from which one has an entrancing view of the distant hills and valleys. It is a favorite picnic spot on our farm.

Like many other farmers' wives with families, I can make use of any money I am fortunate enough to earn.

I began my money-making attempt by placing a small cupboard on a box in the field at "Top o' the Hill." On its shelves I placed an assortment of home-made jellies, jams and pickles as well as jars of salted peanuts.

On the inside of the cupboard doors I tacked a written notice. I explained my self-service idea and invited visitors to help themselves to anything on the shelves they wanted and to leave the money for the purchases in the cupboard. I trusted them. They were also invited to register in a little guest book and make any comments or suggestions they cared to.

This idea seemed very unique to many of the visitors. If they came once to enjoy the beautiful view they were pretty sure to come again and bring or tell their friends.

The self-service cupboard seemed to "take," much to my delight, although it brought forth many amusing comments and dire predictions because of my (crazy?) idea of trusting folks to be honest. To all these comments I always said in effect, "I believe the majority of people are honest and that we *find* what we look *for*."

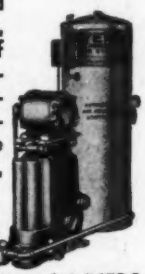
I wanted to earn some money myself. I did

(*Continued on page 30*)

MYERS *Quality* Tells the Story

RUNNING WATER — YOUR FAMILY DESERVES IT

Wherever folks have installed a MYERS Water System, you'll hear the same story of absolute mechanical reliability and thoroughly satisfactory performance. Thousands of farm families are now enjoying running water, supplied by a MYERS system which has served them faultlessly for years on end. They bear happy testimony to the high quality of MYERS products. You, too, will be happy with a MYERS Electric Water System. It costs so little for the service it renders. Models to meet all needs; for deep or shallow wells.



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Water Systems	☐	Centrifugal Pumps	☐
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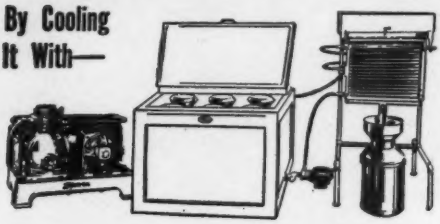
Name .....

Address .....

MAKE MORE MONEY FROM YOUR MILK

By Cooling It With—



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AUTOMATIC REFRIGERATION

If you milk 4 or more cows it will pay you to protect your profits and reputation with the right kind and amount of refrigeration—LIPMAN Automatic Refrigeration—that:

(1) Cools milk quickly, below 50°.
(2) Keeps down bacteria count.
(3) Prevents spoilage, rejects, penalties and exclusion from best markets.
(4) Earns premium grade prices.
(5) Saves time, work and worry.
(6) Makes ice for delivery needs.
(7) Reduces refrigeration costs.

Learn how much LIPMAN Refrigeration saves and earns and how little it costs. The extra profits it brings from higher grade milk soon pay for a modern LIPMAN, leaving you net profits from then on. Before you buy ANY cooler, it will pay you to get the facts about LIPMAN advantages and benefits to you. For complete information covering the size and type LIPMAN for your exact needs, just send a post card to—

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Dept. T-7, Beloit, Wisconsin, U.S.A.

Putting Power in the Lawnmower

By J. C. Scott

THERE is an increasing interest in the electric lawnmower, and Mr. Glen Cushing of the Agricultural Engineering Department of the Puget Sound Power & Light Company has assisted several people in attaching an electric motor to the lawnmower in a way that has given satisfactory results. Here are Mr. Cushing's recommendations: Take the lawnmower apart and remove cutter blades. With a hack-saw, saw blades off at one end next to the web that holds them.

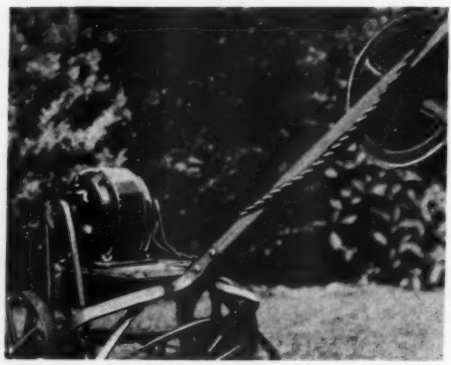
Mount a 4-inch V belt pulley next to this web. Be sure and center pulley concentric with the cutter blades. Use a pulley with as large a hole as possible so that it will slip over the hub of the web. It may be necessary in some cases to cut out on a lathe large enough to slip over the hub.

Reassemble the lawnmower, leaving off the two pinion gears that drive the cutter reel. These can be slipped off after the ratchet prawl is removed.

Mount a ¼ h.p., 1,720 r.p.m., motor with a 1½ in or 2 in. belt pulley above the cutter reel of the mower. This can be done by bolting a block of wood, slightly larger than the base of the motor, to the cross bar that connects the two sides of the lawnmower. The front edge of the board is the one to be bolted to this bar to enable it to clear the cutter reel. This will leave the opposite edge of the mounting block unsupported, so a piece of strap iron must be fastened to this edge, and bent in a shape so as to clear the cutter blades, and with the opposite end fastened by a bolt to the bar that supports the stationary cutter blade.

The reel is driven by a V belt.

To determine the length of this V belt, place the motor in its approximate position. Then a measurement can be made to get the approximate length.



Electrified lawnmower constructed by Mr. Cushing.

By making the mounting block a little larger than necessary the motor can be set in position for proper tension on the belt.

Pulleys and belts can be purchased at almost any hardware store. They are inexpensive. The V belt will cost approximately 30c.

A motor mounted on the lawnmower in this way will not give traction, as it revolves the cutter reel only. However, this will make the lawnmower run very easily. The reel speed is not dependent on the speed at which the mower is pushed, and consequently does a much better job in the corners and along the edges of flower beds.

Lightning Rods Urged for Farm Buildings

Exact knowledge about lightning accumulated from observations, measurements and the artificial production of lightning in laboratories proves that lightning rods with sufficient conductivity offer almost complete protection against damage during electric storms, says Prof. E. R. Gross, agricultural engineer at the New Jersey Agricultural Experiment Station, Rutgers University.

"Recently established field observation stations have revealed that lightning has a voltage of from 100,000,000 to 1,000,000,000 volts or more, depending upon the length of the spark," Professor Gross reports. "The volume of current by actual measurement varies from 20,000 amperes to 200,000 amperes. The time for a single discharge is infinitesmal, but what the eye can see as a stroke may be as many as 40 discharges all coming to earth over the same path within an instant of time.

"This varying number of discharges in a stroke of lightning explains why some strokes result in fire and others do not. A stroke of six to eight discharges probably does not generate enough heat to start combustion, but each discharge increases the heat so that finally wood or other inflammable material may be ignited. It is impossible for the eye to detect the number of discharges.

"This new knowledge also proves that lightning rods neither increase nor decrease the chance of lightning striking a building. The sole function of rods is to provide an adequate path for the stroke, thus protecting against damage. Farm buildings, because of their isolation, require rods much more than do city property.

"Dangerously high induced voltages in metal equipment must be eliminated by connecting with the rods. This includes any large masses of iron, such as machinery, dairy stalls and stanchion and carrier tracks."

Tact

A customer sat down at a table at a smart restaurant and tied his napkin around his neck. The manager, scandalized, called a boy and said to him, "Try to make him understand as tactfully as possible that that's not done."

Boy (seriously to customer): "Shave or haircut, sir?"—Log.

"I'm expecting my wife back from the country today."

"Of course you must be a happy man."

"Oh, sure, I suppose I must, but it's going to be hard."

Golf Clubs

A millionaire's daughter was drowning at the seashore, when a young man plunged in and rescued her. The father was so grateful that he signed a check and said: "My dear sir, will you fill in your name and write any reasonable sum you care to indicate."

The young man smiled modestly and replied: "I wish no reward. I did what any other self-respecting gentleman would have done when a lady is in distress."

The father was so insistent that the hero, to save an embarrassing situation, said casually: "Well, if you insist, just give me a golf club."

A week later he received a telegram from the father: "Have bought for you the West-end Golfers' Club, and am now negotiating for the Sunnyside Links."

Photo by permission of Rural Electrification Administration

MORE WATER COULD HAVE SAVED THIS FARM HOME

Burned to the ground, because of a lack of water—this ruined farm home pictured above shows the value of insurance which could have been provided by a reasonably sized, automatically controlled water system, with storage tank.

This is only one of the many types of farm service to which Century Repulsion Start Induction Single Phase Motors have been applied for more than 30 years in all parts of rural America—doing all kinds of farm work and providing more comfort, safety and leisure for the farmer and his family.

CENTURY ELECTRIC COMPANY
1806 Pine Street St. Louis, Mo.
Offices and Stock Points in Principal Cities

Century

MOTORS
UP TO 600 H. P.

Self Priming—Super Turbine

BURKS — ONLY ONE MOVING PART

PUMPS and WATER SYSTEMS

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NO Leathers Pistons Pulleys Chains Cranks Valves Liners Gears Belts

Standard of Quality and Performance

Lifts Water 28 Feet

Largest Hourly Pumping Capacity

Less Servicing

Lowest Maintenance Cost

Burks Automatic Fig. 3336-9

The BURKS AUTO-BUILT DEEP WELL PUMP is recommended for depths beyond 28 feet.

DECATUR PUMP COMPANY, DECATUR, ILL.

Please send me Bulletin No. 106, including voluntary statements of BURKS PUMPS users.

I have ☐ DEEP WELL, ☐ SHALLOW WELL

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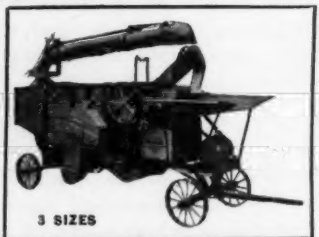
DECATUR PUMP COMPANY, DECATUR, ILL.

MESSINGER MFG. CO., TATAMY, PA.

DUSTERS 6 SIZES 77 MODELS



3 SIZES

THRESHERS CORNSHELLERS

SMALL SIZE THRESHERS

For Rural Electric Lines 3 to 5 HP Required Also Furnished with Engine

3 Sizes

INDEX AVAILABLE

The printed index for the 1936 volume of "Electricity on the Farm" is still available. Readers may secure copies gratis upon request. Address: "Electricity on the Farm," 24 West 40th Street, New York, N. Y.

Eyelet Hose Practical in Supplementary Irrigation

Truck and orchard farmers who irrigate to supplement rainfall are finding "eyelet" hose practical and economical, especially where the soil is sandy or the water supply limited, according to reports to the Bureau of Agricultural Engineering.

Eyelet hose is an adaptation of porous canvas hose. It is made preferably of waterproof canvas and usually is about 3 inches in diameter, with four small eyelets around the circumference at intervals of 2 feet. No matter how eyelet hose may lie, at least two—usually three—outlets are open every 2 feet for the free discharge of water. These outlets under pressure will throw water 6 to 8 feet to each side, usually making it possible to irrigate each middle of an orchard with only one placement of the hose.

Under ordinary conditions it is estimated that eyelet hose will discharge 10 gallons per minute per hundred feet of hose. Usually the hose is made up in lengths of 200 feet, with special brass connecting pieces.

Eyelet hose is now most widely used in orchard irrigation where the soils are sandy. In moving it is commonly emptied and then rolled or gathered loosely for carrying to its next irrigating position.

"I Earned This Money Myself"

(*Continued from page 27*)

not live on a main highway. I did not have the time to devote to tending a regular stand, even if there had been travel enough to call for one, because "Top o' the Hill" is one-third of a mile from the house.

These three reasons brought about my self-service cupboard. All its contents I made myself and tried to have as perfect as possible.

It is a great source of satisfaction to be able to think, if I do not say, "I earned this money myself."

MRS. JESSE DOWNEY,
Dudley, Massachusetts

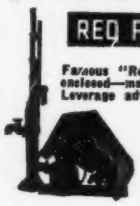
A Solution

Rastus was sent to the general store: "My boss," he said to the clerk, "wants a pane o'glass nine by 'leven." "Haven't got none that size, Rastus," said the joking clerk, "but will a 'leven by nine pane do?" "I'll try'er," replied Rastus. "Maybe if we slip'er in sideways nobody'll notice it."

BAKER POWER PUMP WATER SYSTEM

Gives running water under pressure from any depth well. Various size pumps and capacities—superior design—completely automatic—running in oil—quiet and efficient. Warranted by our half century pump manufacturing experience. Attractive low prices.

RED FRED PUMP JACKS



Famous "Red Fred" Jacks. Quiet—easy running—fully enclosed—machine cut pinion and gears packed in grease. Leverage advantage on up stroke allows use of smaller H.P. Motor. Complete assembled Outfits or Jack units only.

FREE Literature and Engineering Service

THE HELLER ALLER CO. NAPOLEON OHIO

ON THE AIR

Conducted by
JEROME J. HENRY

No, Not Superstitious

RADIO artists usually declare they are unburdened with superstitions but . . . Kathleen Wilson (Claudia Barber) never leaves for the studio without touching a turkey wishbone she has kept since she was a litle girl. . . . George Webster, veteran character star, has kept two pennies in the same battered little wallet for more than 50 years . . . and Betty Kelly, silvery-voiced soprano, has a lucky god carved from a cocoanut shell whom she calls "Penares" because she keeps him with her "lares" and always pats his head before leaving the studio.

• • •

Fidler on Series of Programs

FEARLESS Jimmie Fidler, who has made a reputation for himself because of his absolute frankness in reporting all angles of the movie front, whether favorable or unfavorable to the stars or their employers, is being heard in a new series of evening programs.

This is Jimmie's fourth season on the air and his authentic notes, open letters, his notes from the Little Black Book and his previews of the latest films constitute one of the most successful offerings of its kind on the air.

Fidler maintains a large staff of workers to check all Hollywood studios and to check for accuracy all the material he uses in his programs. Because of his fairness he has built a large follow-

Dorothy Dreslin, Albany, New York, girl, thought her voice was lost forever five years ago. Her doctor ordered a complete rest for her vocal chords. In the meantime Dorothy worked as a stenographer. A year and a half ago she began singing again, later was awarded a contract to sing on a network.

NOW YOU CAN AFFORD TO COOK ELECTRICALLY!

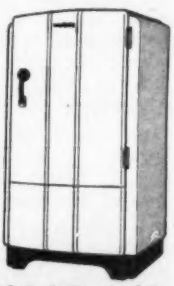
NEW

GENERAL ELECTRIC
AUTOMATIC RANGE
with exclusive TRIPL-OVEN

See this new General Electric *Speedster*—the fastest, most economical electric range ever built. Just a flip of a switch and you have intense, clean, cooking heat. No more fires to kindle! No more ashes to carry! Whole meals can be cooked while you are out of the kitchen for the cooking heat is accurately controlled *automatically!*

The exclusive G-E *Tripl-Oven* with Hi-Speed CALROD cooking units saves you time and money. It is actually "three-ovens-in-one" and provides new operating economies, new speed and greater capacity.

New General Electric
TRIPLE-THRIFT
Refrigerator



You save 3 ways—on price, on operating cost, on upkeep!

Famous G-E sealed-in-steel Thrift Unit with *Oil Cooling* assures more cold for less current, quieter operation, *enduring* economy. 5 Years Performance Protection.

General Electric Co., Section CZ7, Nela Park, Cleveland, O.

GENERAL ELECTRIC

ing not alone among listeners but also among the stars and studios of which he tells.

Jimmie is an enterprising young Tennesseean who has variously been an actor, reporter, press agent for some of the greatest stars of the screen, a magazine publisher and a columnist. He is blond and energetic to the extent that he is known as a human dynamo. When he isn't scurrying about the Hollywood lots, he may be playing golf. badminton or a game of cards. He is expert at all.

• • •

Talking Band Sighs and Frets

SONGS about the laughing saxophone and crying violin aren't just musical gags. Ernie Watson's band is full of such instruments. They laugh, weep, fret, chuckle, and whimper in the background of his NBC show.

Watson, who won't be 34 until next April, has long been a master of transmitting moods to music sheets. He spends his evenings writing novel, whimsical arrangements and composing modern versions of Mother Goose rhymes for his show. The latter he renders himself in semi-musical semi-talking style.

Since Ernie was 10 years old, he has been experimenting with the various sounds a musical instrument is capable of making. While conducting his own small band in high school he found that unusual music was quickest to fascinate his audiences. He has profited from that knowledge throughout his career.

For the melancholy moments in his show, Watson calls upon the violins to produce soft music or lullabies. His trick effects come largely from brass. For a laugh he brings in the saxophones, trumpets and trombones. If he desires to create an illusion of motion, springy music leaps from the brass section. Various studios are equipped with various types of instruments such as the celeste, organs, and even a calliope now and then to aid Watson in getting over his strange moods in music.

Sedley Brown and Allie Lowe Miles.

• • •

Cheerio on Air Ten Years

A DECADE of personal service, unique in that it has been rendered daily by an unseen friend to millions of unseen recipients was celebrated recently over the NBC Red network.

Although Cheerio's program, heard daily from Monday through Saturday, is usually a half hour in length, the anniversary broadcast a few weeks ago occupied a full hour. Cheerio received congratulations from high radio officials.

Cheerio has never given an interview and has never had his photograph published. But he has been one of microphone's best loved personalities for a decade. Because no one knows what he looks like, what his name is, and the details of his personal life, he is all things to all the people who have received optimism and inspiration from his programs. Moreover, during the ten years of service, he has never accepted any payment personally.

Free Information and Catalogs

Complete information about any equipment you are considering buying is yours for the asking.

But please give our advertisers first opportunity to answer your questions. They are particularly well equipped to serve you.

For any further information you need—use the handy coupon below—listing the applications on which you want further information.

FREE INFORMATION COUPON

ELECTRICITY ON THE FARM

Readers' Service Dept., 24 W. 40th St., New York

Without cost to me, please have manufacturers send complete information on the following Electrically Operated Equipment which I am thinking of buying:

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My name is .....

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Fifty-Fifty

"Doctor, my husband is troubled with a buzzing noise in his ears."

"Better have him go to the seashore for a month."

"But he can't get away."

"Then you go."—Boston Transcript.

Packed Jury

"Prisoner at the bar," said the Texas judge, "this case of yours plumb beats me. You said you wanted to bring your own lawyers from your home town, and nary a lawyer has turned up. The jury, most of them strangers to me, have found you not guilty, although thirty-seven men, two women, and a stranger saw you plug Red Pete. Now the jury is supposed to know its business, so you're acquitted. But what about those lawyers?"

"Well, judge," said the prisoner, "I guess I'll be getting along now. The boys will be waiting for me. There was six lawyers, and they was all on the jury."

Questions and Answers

Conducted by R. U. BLASINGAME

Motor Operation

Question: Will you kindly answer the following questions:

What causes a ¾ H.P. electric motor used on a pump jack for pumping water to have a bad squeal on the up stroke, and to dim the lights?

Is there any way of telling if an electric motor is using all of its rated horsepower, or just what amount it is using?

Is it worth while to use a ¾ H.P. motor on a ¼ H.P. job?

In buying a used electric motor, what points of wear should I look for? How can I test it?

W. J. T.

Answer: The temperature at which a motor operates is an indication of whether it is overloaded. Momentary overloads will not cause an appreciable rise in temperature but if the motor is overloaded for any length of time, its temperature will be higher than the normal operating temperature indicated on the name plate. Poor voltage control, poor ventilation and improper lubrication also will cause high operating temperatures. Another check on whether a motor is overloaded may be made with an ammeter by checking the current to the motor and comparing this with the normal current requirement of the motor as indicated on the name plate.

Your motor probably is overloaded during the up stroke of the pump, and the excessive current required causes the light to dim. The squeal may be caused by the motor pulley slipping, or worn bearings, which allow the rotating part of the motor to rub against the stationary part.

In buying a used motor one should check the bearings, commutator, and brushes for wear and the windings for injury by high temperatures, oil and water.

Grinding Feed

Question: *Please send me information on the following items and questions. We grow about 300 bushels of corn, equalling ten tons more or less yearly, practically all of which we have ground as grist and use for stock and poultry. This is ground or milled at the rate of $3.00 per ton at the present time. Would it be practical for us to install an electric grinding unit and, if so, will you let me know the type and size, etc., that you would recommend for us? We have a modern power supply covering most or all needed wattages with a rate of 3c. per k.w.h., figuring this added power use on the lower end of the graded rates which we always reach.*

Also, if practical in our case, please recommend and explain fully a model and type which would also be best for wide usage on a general farm.

D. P. B.

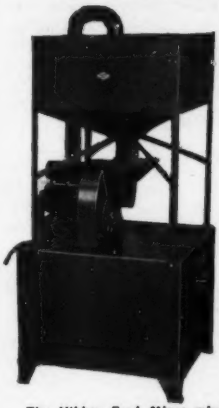
Answer: I believe it would be practical for you to install an electrical feed grinder as a number of advantages are to be gained by doing one's own grinding. It saves time and labor, especially when it would otherwise be necessary to haul the grain to a mill for grinding. Doing the job yourself

(*Continued on page* 34)

Every Farmer His Own Feed Room Operator When He Owns

VIKING

Feed Room Equipment



Operating from fractional horse power motors any farmer can save . . . time . . . labor . . . money with—Viking Hammer Mill — Viking Corn Sheller — Viking Feed Mixer.

With a Viking Hammer Mill you can grind your own feed, at low cost, when and as you want it. Using less than one kilowatt hour per hour, the mill can be plugged into any convenient 110-volt outlet and will grind up to 700 pounds of feed per hour while you go on with other work.

Corn can be dumped into the hopper of the corn sheller and your Viking will sort the ears and feed them automatically. It shells large ears and nubbins equally well and a vibrating screen and blower cleans it thoroughly. Has all-steel electrically welded frame and is equipped with a seed corn tipper.

The Viking Feed Mixer mixes all grains, seed, mashes and concentrates, about one ton of feed per hour, and does an excellent job on inoculation. Has patented kneading action that prevents oil mixtures from working into balls or lumps.

Write for complete information and literature.

Viking Manufacturing Co.

Jackson, Michigan, U. S. A.

SPARTAN for $104.00

Includes 42-gal. tank —air control, relief valve — automatic pressure switch—¼ H.P. motor — and Spartan Deep Well Pump.

Compare SPARTAN with any

1. Double Spiral Cut Gears for strength and quietness.
2. Special take up of bearings provided.
3. Moving parts run in oil.
4. Completely assembled and shipped in one crate.
5. Pumps up to 410 gals. per hour down to 300 feet depending on size of motor and cylinder selected.

Write for Catalog.

ELECTRIC
Water Systems
Cellar Drainers
Milk Coolers
Refrigerators
&
Water Softeners
SEPTIC TANKS

1503 EAST LAKE ROAD
UNIFLOW
ERIE, PENNSYLVANIA

What's New

Reviewed by T. E. HIENTON

Names and addresses of manufacturers of the articles described in this column will gladly be furnished upon request. Address your requests to What's New Department, ELECTRICITY ON THE FARM, *24 West 40th Street, New York, N. Y.*

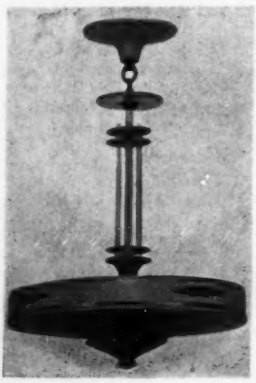
Electric Brooder

Visits with farmers who have used electric brooders for seven or eight years reveal that they are enthusiastic over them and would not return to those heated by coal or oil. The new user of an electric brooder has an advantage over those

farmers who have used them for several years since refinements and improvements have been made particularly with respect to ventilation.

A new brooder, developed by a manufacturer of hatchery and poultry supplies, has been recently announced. This brooder, which has a 50-inch round canopy, is equipped with a snap-action switch to eliminate radio interference. A small electric fan is mounted beneath the heating element and forces air up over it and outward beneath the hover and under the curtain. The brooder is constructed with a double metal shell with rock wool insulation between and has a double curtain with air space between them.

Better Sight Fixtures



Changing from a kerosene lamp to an electric one creates such a favorable transformation in visibility in the farm home that little thought is given to selection of lighting fixtures. The light from a naked 10-watt lamp so far surpasses the illumination available before electric service furnished light that glare and shadows are unnoticed. Fixtures of modern design will aid in good illumination properly distributed minus glare and shadows.

Investigations of illumination engineers have led to perfection in design of better lamps and better fixtures which are termed "Better Light." A series of such fixtures has been developed by an eastern fixture manufacturer. There are styles and types in this series for all of the rooms in the farmhouse, including living room, dining room, hall, bedroom, etc. Such fixtures deserve consideration to improve lighting conditions in houses already wired or to insure good lighting in a newly wired one.

Questions and Answers

(Continued from page 33)

enables you to do it when you want it done and in the most desirable manner. To easily grind various combinations of grain to varying degrees of fineness and amounts to suit the need often is desirable.

It requires from about 0.2 to 2.0 kilowatt hours to grind 100 pounds of feed, depending upon the kind of grain and fineness of grinding. At 3c. per kilowatt hour this would amount to from 12c. to $1.20 a ton for electrical energy. With the smalll size semi-automatic feed mills, of which there are several on the market, the first cost is low and a minimum of labor is required for their operation. Some of these require as little as a ½-horse power motor and are constructed so as to shut off themselves after a given quantity of grain is ground. All that is necessary is to fill the hopper, or adjust the spout carrying grain to the hopper, set the mill to give the correct fineness or coarseness and close the switch to start the motor. The operator can then go about his chores or other business while the grinding is being done.

If you wish to grind roughage or ear corn a larger mill will be necessary. However, as you do not mention this requirement, I believe a small mill will fit your need. I am having descriptive leaflets of several mills sent to you.

Ducks are very timid and afraid of the dark. Modern duck farms use all night electric illumination to keep their ducks from stampeding. Electricity is used extensively on quail, pheasant, and game farms for incubating, brooding, control of humidity, and for water pumping and heating.

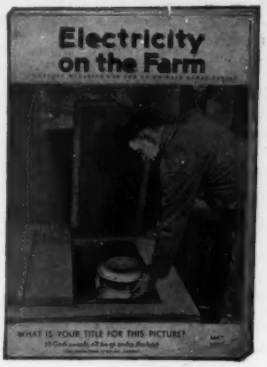
CLASSIFIED ADVERTISING

LYON FLY ELECTROCUTORS kill disease-carrying pests the easiest way. Thousands of flies killed daily at a cost of a cent or two. Cheaper than spraying. Built for long service. Fireproof and waterproof. Send for FREE catalog describing money-saving brooders, alarms, electric material for homemade equipment. LYON ELECTRIC CO., Dept. E.F., San Diego, Calif.

SAFE, SANITARY ELECTRIC LAMP KILLS INSECTS AUTOMATICALLY without bait or cost where light is needed. Amazing results in garden, farm, lawn, business house, home, etc. Lifetime service. Price, $2.00 up. Literature free. SAUER BROS., MFRS., 14820-M Foothill Blvd., Oakland, Calif.

COBURN ELECTRIC MILK AND CREAMER COOLERS $19.50 complete. Satisfaction guaranteed. 30 days trial. Cools rapidly at little expense. Saves costly cooling equipment. No installation, wiring or piping cost. Agents wanted everywhere. Write for free folder. COBURN CO., B-311, Whitewater, Wis.

COVER TITLE CONTEST



MAY COVER

RULES
For July Issue Contest

Ten cash prizes will be awarded. The first and grand prize will be $20.

In addition a cash prize of $2 will be awarded for the best title from each of these nine geographic divisions of the country — (1) New England, (2) Middle Atlantic, (3) South Atlantic, (4) East North Central, (5) East South Central, (6) West North Central, (7) West South Central, (8) Mountain, and (9) Pacific.

In case of a tie, each winning contestant will receive the full cash prize to which he or she is entitled.

Titles should be brief—the shorter the better.

All members of the farm family to whom this magazine was sent may submit titles, but each contestant may submit only one title.

Question "A" must be answered.

Entries must be sent to the Title Editor, ELECTRICITY ON THE FARM, 6 North Michigan Avenue, Chicago, Illinois, before August 1st.

Winning names and titles will be announced in the September issue.

Send your title on the coupon or make out a similar form on a plain sheet of paper or government postcard.

Awards for May Contest

First Prize—$20

"Chilled by wire—profits higher."

MRS. EUGENE B. TINKER, R.F.D. 1, Creswell, Ore.

Nine $2.00 Cash Prizes

"Bacteria count down, dollar count up."
R. E. BARGER, Star Route, Spring Valley, Cal.

"Ice cold water up to the neck
Increases the milkman's weekly check."
MRS. H. CAPWELL, Elmwood, Neb.

"With a new electric cooler bacteria no longer is the ruler."
FLORENCE MENG, R.F.D. 3, Rexburg, Idaho

"Cold facts are that cold milk makes cold cash."
MRS. P. A. PAULSON, R.F.D. 2, Palatine, Ill.

"This cooling tank gives milk first rank."
MRS. A. W. BRINKMAN, R.F.D. 1, Newtown, Ohio

"Milk quickly cooled is grade A ruled."
MRS. SAMUEL W. LOVE, R.F.D. 2, Watkins Glen, N. Y.

"Because the switch is turned, the milk isn't."
MILDRED SHEFF, Florida, N. Y.

"A chilly reception for bacteria."
MRS. F. C. DUNN, R.F.D. 2, Spokane, Wash.

"An electric chill is a bitter pill for bacteria."
R. M. MICKLE, R.F.D. 2, Waco, Texas

My title for the July Front Cover picture of ELECTRICITY ON THE FARM is.....

.....

.....

(a) What new electrically-powered equipment and appliance have you obtained during the past year? (Please identify by brand name.).....

.....

.....

My name is.....R.F.D. .....

Post Office.....County.....State .....

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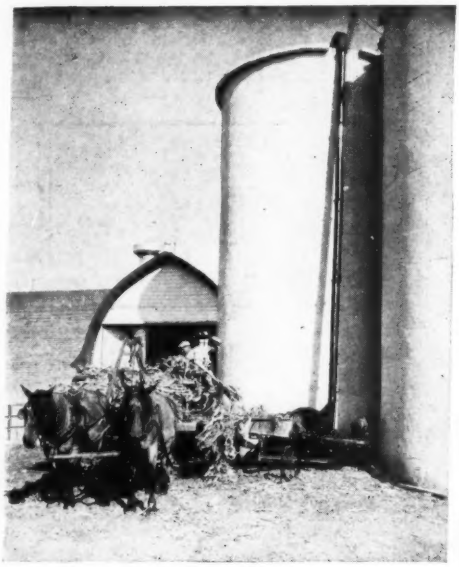

THE *Modern* WAY IS THE ELECTRIC WAY

One kilowatt hour of current will put a ton of silage in your silo.

And think of the time you will save during your busy season of the year.

One kilowatt hour will also hoist three tons of hay . . . bale three tons of hay . . . run a refrigerator for a day . . . operate an electric fan for 10 hours . . . grade 200 bushels of apples . . . milk a cow for three weeks . . . and save you time and money on many other farm chores.

ASK YOUR POWER COMPANY

or your favorite electrical dealer for any further information that you need. Or, if you prefer, address your inquiries to ELECTRICITY ON THE FARM, 24 W. 40th St., New York, or 6 No. Michigan Ave., Chicago.

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